

I Claim:

1. A height-adjustable hinge device, having one of its hinge flaps fixable to a door frame and provided with a means for stepwise height adjustment, said means having a polygonal flange member with elected ones of flange edges thereof engageable into abutment with a lower edge of the hinge flap or a collar in an opening in the hinge flap, characterised in:

a) that said means consists of a pin that is pivotally connected to the door frame and in a unitary manner being equipped with said polygonal flange member with its respective edges at different distances from the centre of the pin; and

b) that a further pivotable flange member is provided unitarily with said pin and bearing against a rear side of said hinge flap.

2. A height-adjustable hinge device having a hinge flap that is fixable to a door frame is provided with a means for stepwise height adjustment, said means having a rounded, eccentrically supported flange with any portion of the circumference of the flange locatable into abutment with the lower edge of the hinge flap; and with the flange fixable against turning by means of a set screw, characterised in the flange being unitarily attached to a pin that is pivotally connected to the door frame.

3. A height-adjustable hinge device, having a hinge flap that is fixable to a door frame and being provided with a means for stepwise height adjustment, characterised in that said means consists of a wedge device mounted on a vertical portion of the door frame and which is steplessly movable parallel to the lower edge of the hinge flap in order to urge a slide resting against the lower edge of the hinge flap to move either up or down.

4. A height-adjustable hinge device, having one of its hinge flaps capable of being snapped into a mounting fitting or an insertion fitting affixed to a door leaf, characterised in that said device has a height adjustment member, said height adjustment member being

a wedge device mounted on a vertical portion of the door leaf and which is steplessly movable parallel to an upper edge of the hinge flap in order to urge a slide resting against a part of the upper edge of the hinge flap to move either up or down.

5. A device according to claim 3, wherein said wedge device has a shape of a trapezoid with its non-parallel edges riding on inclined faces, one face thereof being on said slide, and the other face being stationary.

6. A device as disclosed in claim 4, characterised in that said wedge device and said slide are located in said mounting fitting or said insertion fitting.

7. A height-adjustable hinge device with means for stepwise height adjustment, said device having one of its hinge flaps capable of being snapped into a mounting fitting affixed to a door leaf, characterised in:

a) that said means consists of one pin intended for insertion into a vertical portion of the door leaf, and pivotally connected to the door leaf, and further being unitarily equipped with a polygonal flange or rounded flange with the respective edges or portions thereof at different distances from the centre of the pin; and

b) that any one of the flange edges on the pin can be brought into abutment with an upper edge of the mounting fitting.

8. A height-adjustable hinge device with means for stepwise height adjustment, said hinge device having a hinge flap capable of being snapped into a mounting fitting affixable to a door leaf, and said means having a pivotable polygonal or rounded flange, any one of the flange edges on the pin locatable into abutment with an upper edge of the hinge flap snapped into the mounting fitting, characterised in:

a) that said means consists of one pin intended for insertion into a vertical portion of the door leaf, and pivotally connected to the door leaf, and further being

unitarily equipped with said flange with the respective edges or portions thereof at different distances from the centre of the pin; and

b) that a further pivotable flange member is provided unitarily with said pin and bearing against a rear side of said hinge flap when the hinge flap is located in said mounting fitting.

9. A side-adjustable hinge device having one of its hinge flaps fixable with screws to a door frame, characterised in:

a) that an adjustable screw body is provided for fastening into the frame for abutment with the rear side of the hinge flap, said screw body having a double-head structure fitting into engagement with a recess in an end region of the hinge flap; and

b) that screw members can be fastened through holes in the hinge flap for the fixing of the hinge flap to the frame, and providing for angular adjustment of the hinge flap relative to an adjacent portion of the frame in cooperation with a protrusion on the hinge flap, and said screw members extending through said holes which are located in the protrusion.

10. A side-adjustable hinge device, having one of its hinge flaps fixable with screws to a door frame, and having an adjustable screw body capable of being fastened into the frame for abutment with a rear side of the hinge flap, characterised in that a screw can be fastened into the screw body through a hole in the hinge flap for the fixing of the hinge flap to the screw body and the simultaneous angular adjustment of the hinge flap relative to an adjacent portion of the frame in cooperation with a protrusion on the door frame or on the hinge flap.

11. A side-adjustable hinge device, having one of its hinge flaps fixable with screws to a door frame, and with an adjustable screw body to be fastened into the frame or into a frame fitting for abutment with a rear side of the hinge flap, characterised in that a screw can be fastened into the screw body through a hole or cut-out in the hinge flap for the

fixing of the hinge flap to the screw body and the simultaneous angular adjustment of the hinge flap relative to an adjacent portion of the frame in cooperation with a locating portion on the door frame and fixing screws.

12. A device as disclosed in claim 11, characterised in that the other of its hinge flaps is releasably snapable into a fitting provided in a door leaf.

13. A depth-adjustable hinge device, having one of its hinge flaps is fixable with screws to a door frame and said hinge flap having a tongue that lies at 90° to the plane of the hinge flap, characterised in:

- a) that the tongue is intended for rotatable engagement with a double-headed adjusting screw which is insertable into the frame parallel to the plane of the hinge flap;
- b) that the tongue has a cut-out for insertion of the double-head portion of the screw; and
- c) that the fixing screws of the hinge flap extend through elongate holes in the hinge flap for fixing the hinge flap to the frame.

14. A hinge device of the snap-in type, having one of its hinge flaps insertable into a insertion fitting in order to be locked to the fitting by snap action, the insertable hinge flap having a receiving slot for a male snap-in member located on the fitting, and the male snap-in member having one catch or two cooperating catches, characterised in that the male snap-in member is resilient in a plane coinciding with or parallel to a plane of insertion for insertable hinge flap.

15. A hinge device of the snap-in type, having one of its hinge flaps insertable into a insertion fitting in order to be locked to the fitting by snap action, the insertable hinge flap having a receiving slot for a male snap-in member located on the fitting, and the male snap-in member being adjustable along the axis of movement of the hinge flap,

characterised in that the male snap-in member has one catch or two cooperating catches which are resilient parallel to or in a plane in which the hinge flap is inserted.

16. A hinge device of the snap-in type having one of its hinge flaps insertable into a insertion fitting in order to be locked to the fitting by snap action, that the insertable hinge flap having a receiving slot for a male snap-in member located on the fitting and the male snap-in member is made having one catch or with two cooperating catches, characterised in that the male snap-in member is resilient in a plane coinciding with or parallel to a plane of insertion for insertable hinge flap.

17. A device as disclosed in claim 16, characterised in that the male snap-in member is adjustable along the axis of movement of the hinge flap.

18. A hinge device of the snap-in type having one of its hinge flaps insertable into an insertion fitting in order to be locked to the fitting by snap action, characterised in:

- a) that the insertable hinge leaf has a receiving slot for a male snap-in member located on the fitting; and
- b) that the male snap-in member is made as a uniform body shaped at each end with a catch, or consists of two separate catches, where one of the catches is intended to form engagement with the receiving slot when the hinge flap is inserted into the fitting from one side thereof, and where a second of the catches is intended to form engagement with the receiving slot when the hinge flap is inserted into the fitting from a second side thereof.

19. A hinge device of the snap-in type having one of its hinge flaps insertable into an insertion fitting in order to be locked to the fitting by snap action, characterised in:

- a) that the insertable hinge flap has a receiving slot for a male snap-in member located on the fitting; and

b) that the male snap-in member has been given a X shape with an engaging catch at the end of each branch, where two of these are intended to form engagement with the receiving slot when the hinge flap is inserted into the fitting from one side thereof, and where the two other branches are intended to form engagement with the receiving slot when the hinge flap is inserted from the other side thereof.

20. A hinge device of the snap-in type, where one of the hinge flaps is insertable into an insertion fitting in order to be locked to the fitting by snap action, characterised in:

a) that the insertable hinge flap has a receiving slot for a male snap-in member located on the fitting; and

b) that the male snap-in member is made as a uniform body of spring steel shaped at each end with a catch positioned symmetrically or asymmetrically about a central part of the member.

21. A device according to claim 20, wherein the male snap-in member is longitudinally movable relative to the fitting to provide for depth adjustment.

22. A hinge device of the snap-in type, where one of the hinge flaps is insertable into an insertion fitting in order to be locked to the fitting by snap action, the insertable hinge flap having a receiving slot for a male snap-in member located on the fitting; and the hinge flap at its free end being equipped with a U-shaped cut-out for cooperation with an adjusting screw equipped with a double-flanged head for side adjustment of the hinge, characterised in that the male snap-in member is made as a uniform body of spring steel and provided with a catch.

23. A device as disclosed in claim 20, characterised in:

a) that the male snap-in member forms in a non-unitary manner a bottom of the insertion fitting; and

b) that the spring steelbody is adjustable in the longitudinal direction of the fitting for depth adjustment.

24. A device as disclosed in claim 20, characterised in that the male snap-in member is inside the fitting adjacent to the outside thereof.

25. A device as disclosed in claim 22 characterised in that the male snap-in member is inside the fitting adjacent to the part thereof or forming the part thereof that is closest to the door leaf.

26. A device as disclosed in one or more of claim 15, characterised in at least one locking screw or locking pin is insertable into the fitting to prevent said male snap-in member from disengaging from said receiving slot.

27. A device as disclosed in claim 22 characterised in that the insertion fitting consists of the male snap-in member itself.

28. A device as disclosed in claim 22, characterised in that the male snap-in member is adjustable in the longitudinal direction of the insertion fitting.

29. A device according to claim 4, wherein said wedge device is moveable into the door leaf in a direction of 90 degrees to the direction of the hinge leaf.

30. A device according to claim 29, wherein said slide and said wedge device extend into said door leaf parallel to a greater face thereof.

31. A device according to claim 4, wherein said wedge device has a shape of a trapezoid with its non-parallel edges riding on inclined faces, one face thereof being on said slide, and the other face being stationary.

32. A device as disclosed in claim 5, characterised in that said wedge device and said slide are located in said mounting fitting or said insertion fitting.